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HANDBOOK OF LOCALIZED LIGHTING

*Seeing ability
controls workers' efficiency*

THE FOSTORIA PRESSED STEEL CORP.
FOSTORIA, OHIO



Reg. U. S. Pat. Off.

CONTENTS

	Page
What Is Localized Lighting.....	1
Selection of Supplementary Lighting Units.....	2-3
Fostoria Flexible Supporting Arm Line and Accessories	4-5
Specifications Standard Flexible Supporting Arms.....	6
Specifications Standard Flexible Arm Reflector Assemblies.....	7
Efficiency Comparison Charts Flexible Arm Reflector Assemblies.....	8-9-10
Standard Flexible Arm Base Attachments.....	11-12-13
Specifications Standard Flexible Arm Bases.....	13
Specifications Flexible Localite Complete Units.....	14
Single Arm Models.....	15-16
Double Arm Models.....	15-17
Special Localite Complete Units.....	18
Canopy Localite Units.....	19
"Z" Type Canopy Localite Units.....	20-21
Attachments for "Z" Type Canopy Localite..	21
"W" Type Canopy Localite Units.....	22-23
Alzak Lamp Cups.....	22
Special Flexible Localite Sewing Machine Units.....	24

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WHAT IS LOCALIZED LIGHTING?

Light directly on the job—engineered to the exact requirements of the worker and under his control — that is *localized lighting*.

LOCALIZED LIGHTING SUPPLEMENTARY ILLUMINATION

Good lighting starts with adequate general illumination. It is sufficient except where critical seeing tasks are the rule, where accuracy depends upon the worker's ability to see clearly and unfailingly what he is doing. Usually such tasks require higher intensity lighting than is provided by general illumination. The latter must be supplemented by localized lighting to insure the proper quality and quantity of illumination for the seeing task.

Thus, in most operations in service and production industries, correct illumination is a combination of good general and good localized lighting — general lighting for the background, localized lighting for the close-up.

No longer is it good engineering practice to stretch the utility of either type of lighting beyond efficiency and economy limits. That there are distinct limits and that these limits may be readily determined is an accepted fact among illumination engineers today.

Theory dictates consideration of localized lighting in every industrial lighting problem. Practice proves that localized lighting engineered to the needs of workers is required to solve many of these problems.

EXPECT MANY ADVANTAGES

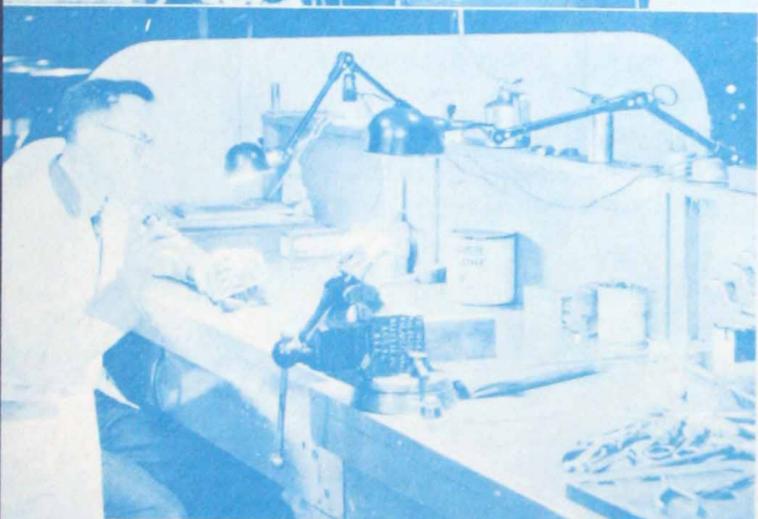
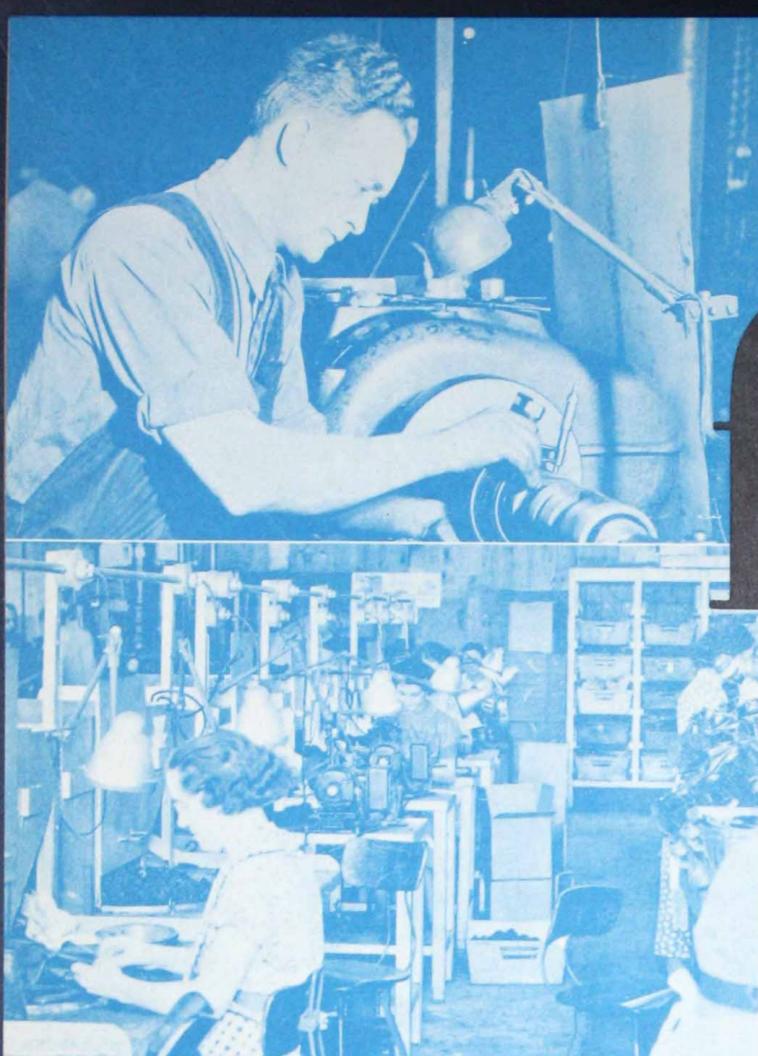
When a worker can see clearly what he is doing he does better work. Better work means less loss in operation.

When a worker is enabled to perform his task with sureness and precision, he turns out more work. More work per worker means lower costs.

When a worker has adequate lighting on and around his job there is less hazard connected with it. Less danger makes for better employee morale.

These are but a few of the many advantages to be gained from proper lighting of difficult seeing tasks in industry. Proper lighting is most decidedly a dividend-paying investment. Practical tests prove that savings made through adequate illumination match quickly the costs of installation.

The human eye is still the greatest of all tools in industry. It pays to keep it sharp.



fostoria

FLEXIBLE
LOCALITE

THE FOSTORIA LOCALITE

Advocation of supplementary illumination is not to be viewed as a return to a maze of drop cords and bare lamps suspended over the task a worker is performing.

On the contrary, it is the recommendation of localized lighting units of modern character, designed with workers' needs in mind — units whose efficiency blends with that of the general lighting system.

THE PRODUCT WHICH BEST PROVIDES EFFICIENT LOCALIZED LIGHTING

Just as tasks are different and workers' seeing ability varies, so must the quality and quantity of illumination supplied by localized lighting units be variable.

One may require high intensity spot lighting. Another may need high intensity over a larger area. Still another may require a diffused type of lighting.

One worker may need the light source six inches from the task. Another may require it thirty-six inches removed. And still another may need it at several different distances as the work progresses.

Withal, the unit itself must be built to serve the worker, providing proper lighting and at the same time be rugged enough to stand up unfailingly in rough usage. The unit must do his bidding without consuming the worker's time. It will provide illumination anywhere in the working plane easily, quickly, and economically.

ENGINEERED TO MEET NEEDS OF INDUSTRY

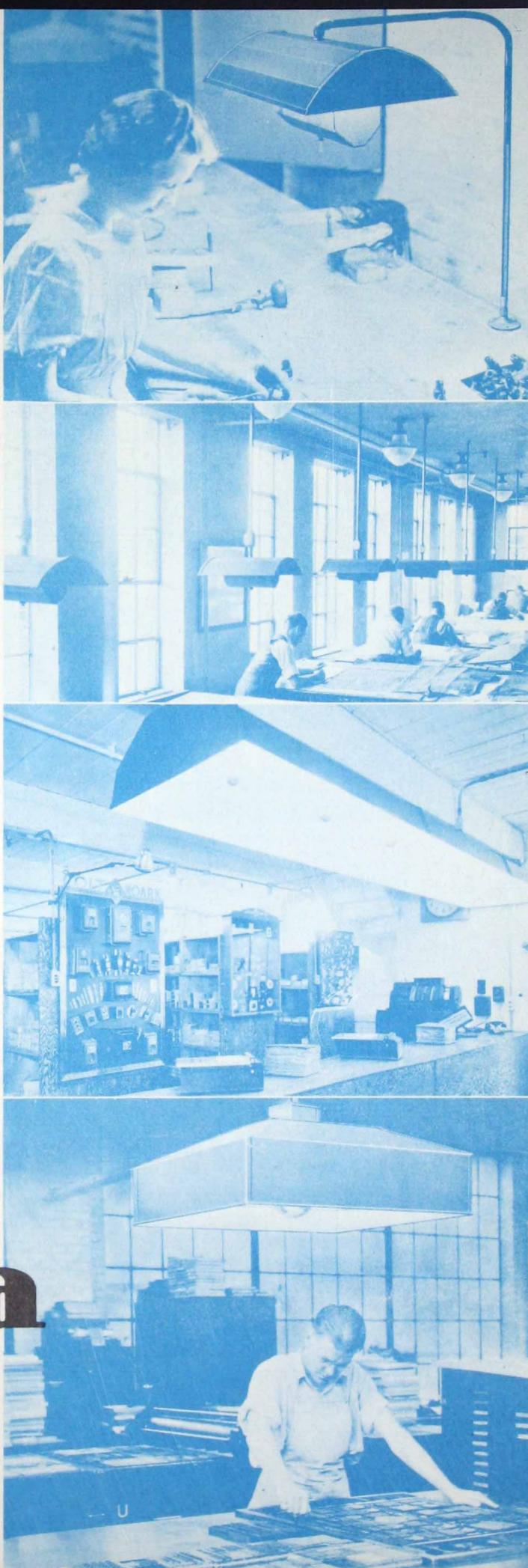
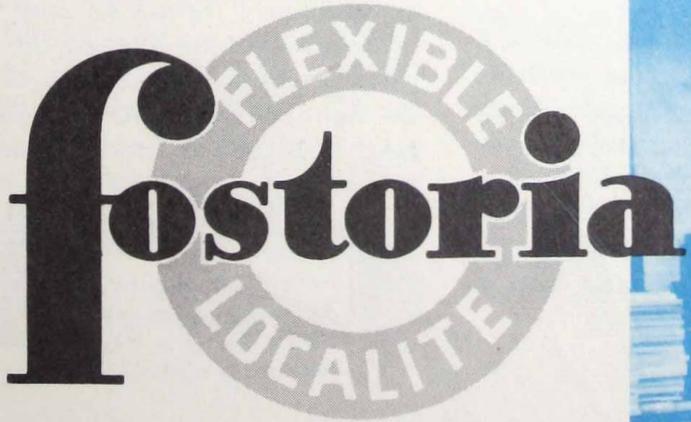
For practical purposes localized light sources are divided into two general classifications — (a) small reflectors of various designs usually installed in close proximity to the work and usually on flexible or semi-flexible arms and bases, and (b) large-area low-brightness units suspended either from the ceiling or on supporting stands relatively near the operation being performed.

Thus, Fostoria Localites, as illustrated here, are available in two general designs — the Flexible Arm model and the Canopy model — each made in a variety of styles and sizes.

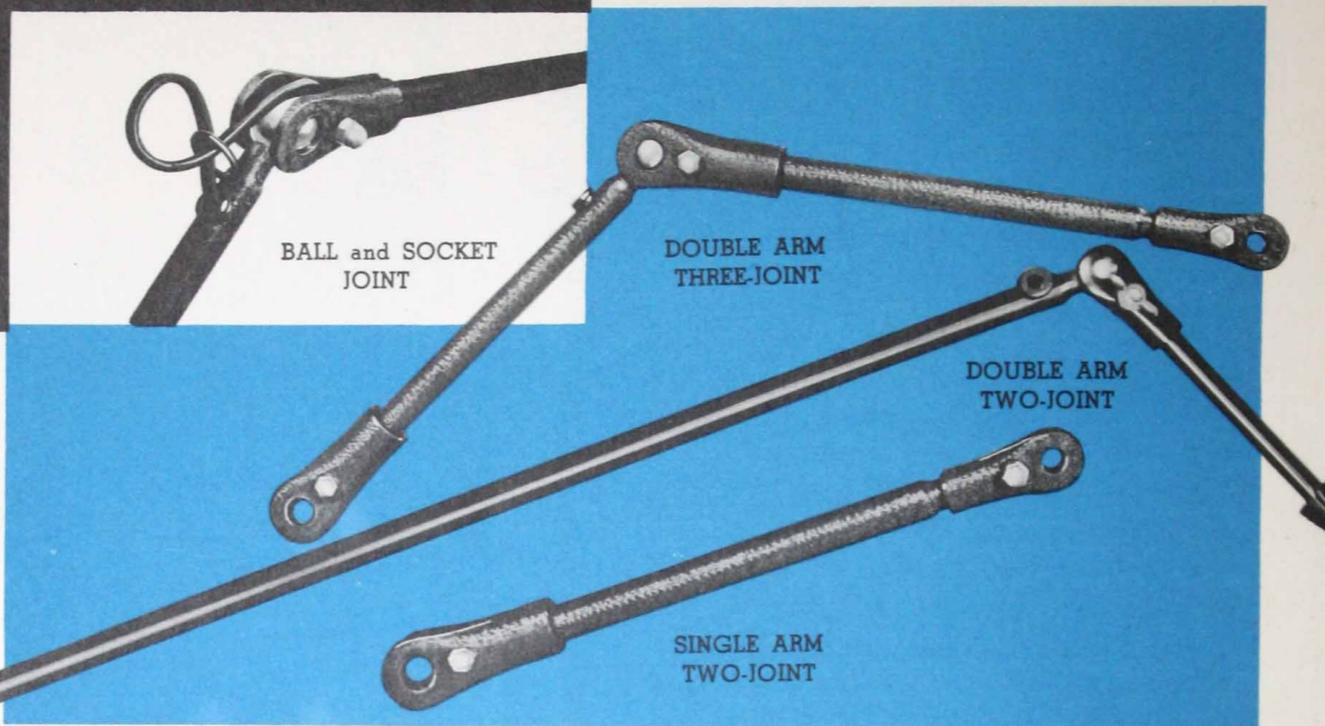
The Flexible Arm unit supplies high intensity illumination of direct character for relatively small working surfaces. The Canopy unit also provides high intensity lighting of a diffused quality but for larger working areas where reflected glare is a problem.

Regardless of the supplementary lighting requirement, one or the other of the many Fostoria units may be expected to meet it. With the Fostoria line at his command the illumination engineer is enabled to suit the lighting unit to the task, rather than having to suit the task to the lighting unit.

Whether it is a Flexible Arm or Canopy model, each unit is engineered and built to provide fool-proof localized lighting which supplements efficiently the general illumination system. Each unit is constructed to stand the service expected of it in modern industrial service.



THE FOSTORIA FLEXIBLE SUPPORTING ARM LINE



Like a lot of good products, the Fostoria Flexible Arm Localite is a very simple piece of equipment employing in combination several common principles, which have long since been accepted as sound and fool-proof.

THE SUPPORTING ARM

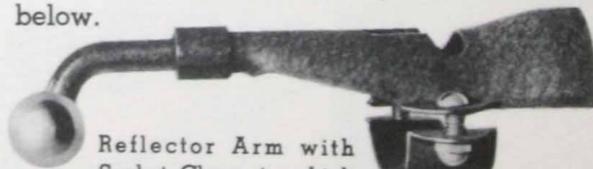
The supporting arm used is available in three standard types — single arm 2-joint, double arm 2-joint, and double arm 3-joint — each constructed to provide maximum flexibility with sufficient rigidity to withstand the shocks and strains imposed in modern industrial and commercial use.

Flexibility is obtained by utilizing a ball and socket arrangement for joints, this construction being substantially wearproof. Arms may be moved at will as quickly and easily as pointing a finger — without loosening or tightening bolts and nuts. Wherever the wiring passes through the wall of the arm, an approved bushing protects the cord against chafing.

Steel balls are tin-coated. Ball seats are ground to conform to the exact shape of the balls and to insure perfect fit. All nuts and bolts are Cadmium-plated.

That part of the supporting arm to which the reflector is attached is an integral part of the reflector by welding. As illustrated below, the rigid underclamp holds the lamp socket firmly in place at all times and prevents the socket pulling apart or becoming detached from the reflector as in ordinary design. In Fostoria Flexible Localites there can be no strain whatever on the socket.

An additional feature on most Flexible Arm models is a swivel joint on the reflector arm which permits easy rotation of the reflector 58° right or left without changing the adjustment of the ball and socket joints. Illustrated below.



Reflector Arm with
Socket Clamp to which
Reflector is welded.

THE REFLECTOR

With the exception of the Uni-focal model, all Flexible Arm Localites are equipped with steel reflectors finished with special baked enamel. The Uni-focal is Alzak Aluminum.

In all, there are eight different types of reflectors, each supplying an individual intensity and pattern of lighting. They accommodate lamps of various wattage from the small 15 candle power double-contact, candelabra bayonet-base lamp up to and including a 100-watt inside-frosted Mazda. Most all reflector models are available with clear glass and diffusing lenses.

THE BASE ATTACHMENT

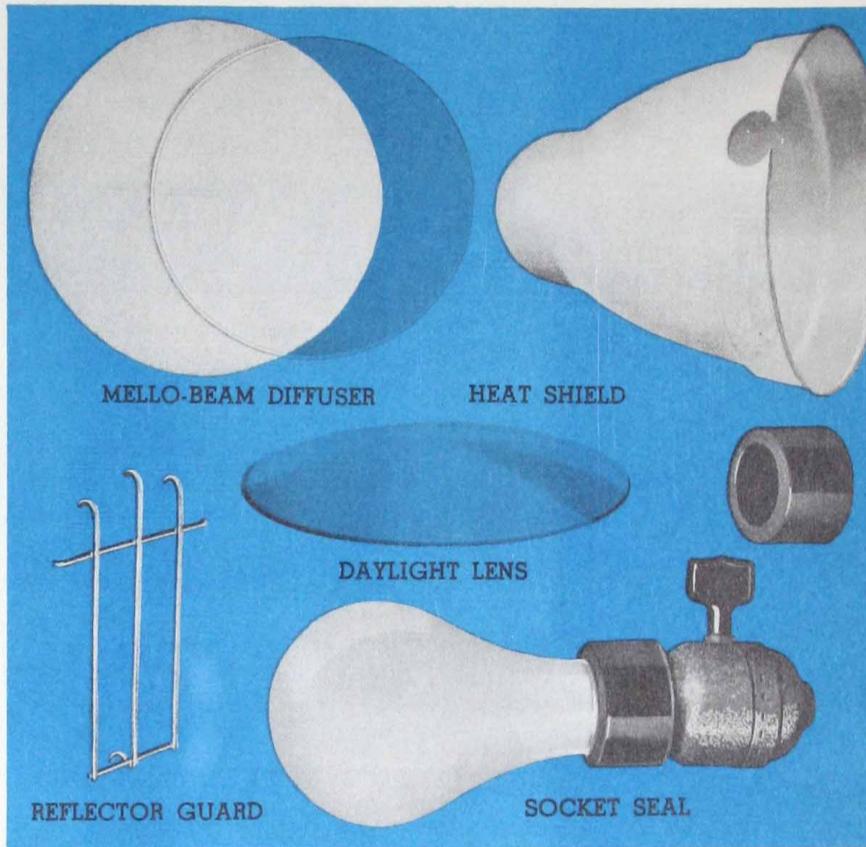
Since applications are many and varied, Flexible Arm Localites are available with a wide variety of base attachments for table, bench, wall and machine mountings. They are also supplied with portable stands and special portable clamp fittings.

THE WIRING

Standard wiring includes a special design of Neoprene socket — which embodies a socket-seal feature — PO Neoprene cord, and spring clip plug. This cord set is substantially oil proof and is the best equipment of its kind available on the market.

Optional wiring equipment is Underwriter's approved oil-resisting POSJ-BOA-64 rubber cord, standard metal socket with Fostoria Socket Seal, and spring clip rubber plug. Cord is enclosed in cloth treated with ten coats of lacquer. Metal socket has a small "shoulder" extending from shell of socket which prevents shorts in the key through wear where key enters the reflector arm.

Cord is long enough to provide approximately 36" extension beyond base. All switches used are of standard make, and match the high quality of the Flexible Arm line. Lamps are furnished only where indicated in specification tables. Neoprene cord not supplied



on units using Nos. 3971, 3973 or 42 arms, or in models No. 3476-CL-130, No. 41-M, No. UT and No. 39-M-150.

ACCESSORIES

To meet special needs of Flexible Arm Localite users, several accessories have been developed and are now available with Localite units or separately as desired.

HEAT SHIELDS—Special composition fiber shields for numbers "H" and "U" reflectors to protect against accidental burning of worker. Packed 12 to a box, 6 boxes to a case.

REFLECTOR GUARDS—Snap-on steel reflector guard for lamp protection. Sizes to fit numbers "B," "H" and "K" reflectors. Packed 12 to a box, 12 boxes to a case.

SOCKET SEALS—Molded rubber seal for medium base sockets to protect socket and lamp union from dirt, chips, cutting oil, etc. 25 units to box, 20 boxes to a case.

REFLECTOR LENSES—Flashed Opal and Clear Glass lenses, and Mello-Beam Diffusers with clear glass lens for numbers "B," "C," "P," "U," and "M" reflectors. 12 to a box. Daylight Lenses for models "U," "X," and "Y" reflectors.

STANDARD FLEXIBLE SUPPORTING ARMS

SINGLE ARM DESIGN

SPECIFICATIONS	Arm Number	No. of Joints	Overall Length	For Use on Bases Below	For Use With Reflectors Below
	31	2	7"	101 103 115 117	B-C-H-K-P-X-Y
	32	2	10 $\frac{3}{4}$ "	102 104 105 106 111 113 114 116 130 132 140 142 143	B-C-H-K-P-X-Y
	34	2	14"	102 104 105 106 111 113 114 116 130 132 140 142 143	B-C-H-K-P-X-Y
	35	2	15"	144 145 146 147 148 149	B-C-H-K-P-X-Y
	37	2	16 $\frac{1}{4}$ "	102 104 105 106 111 113 114 116 130 132 140 143	U
	39	2	5 $\frac{5}{8}$ "	135 150	D-M-HS
	42	2	5 $\frac{5}{8}$ "	135	M-D-HS
	69	2	10 $\frac{1}{8}$ "	109 112	X-Y

Models B-C-M-P-U-X-Y reflectors available with Flashed Opal and Clear Glass lenses and Mello-Beam Diffusers with Clear Glass lens. Daylight lenses for Models U, X and Y.

DOUBLE ARM DESIGN

SPECIFICATIONS	Arm Number	No. of Joints	Overall Length	Upper Arm Length	Lower Arm Length	For Use On Bases Below	For Use On Reflectors Below
	3166	3	13 $\frac{5}{8}$ "	7"	6 $\frac{5}{8}$ "	101 103 115 117	B-C-H-K-P-X-Y
	3267	3	20 $\frac{1}{8}$ "	10 $\frac{3}{4}$ "	9 $\frac{3}{8}$ "	102 104 105 106 111 113 114 116 130 132 140 142 143	B-C-H-K-P-X-Y
	3368	3	24 $\frac{1}{4}$ "	11 $\frac{7}{8}$ "	12 $\frac{3}{8}$ "	102 104 105 106 111 113 114 116 130 132 140 143	U
	3670	3	30 $\frac{1}{2}$ "	15 $\frac{7}{8}$ "	14 $\frac{5}{8}$ "	102 104 105 106 111 113 114 116 130 132 140 142 143	B-C-H-K-P-X-Y
	3872	3	37"	18 $\frac{7}{8}$ "	18 $\frac{1}{8}$ "	102 104 105 106 111 113 114 116 130 132 140 142 143	B-C-H-K-P-X-Y
	3971	2	20 $\frac{5}{8}$ "	5 $\frac{5}{8}$ "	15"	145 146 147 148 149	D-M-HS
	3973	2	27 $\frac{1}{8}$ "	5 $\frac{5}{8}$ "	22 $\frac{1}{4}$ "	145 146 147 148 149	D-M-HS
	3476	3	42 $\frac{3}{4}$ "	14"	17"	102 104 105 106 111 113 114 116 130 132 140 142 143	B-C-H-K-P-X-Y

See pages 14-15-18 for listings of Complete Flexible Arm Localite Assemblies.

Models B-C-M-P-U-X-Y reflectors available with Flashed Opal and Clear Glass lenses and Mello-Beam Diffusers with Clear Glass lens. Daylight lenses for Models U, X and Y.

REFLECTOR ASSEMBLIES FOR FLEXIBLE ARM LINE

Standard Reflector Assemblies, as listed below and which are described in detail on pages eight, nine and ten, in all cases are a combination of reflector and reflector arm.

All models, except numbers "H," "K" and "D" may be equipped on special order with Flashed Opal lens, Clear Glass lens, Mello-Beam Diffusers with Clear Glass lens; Daylight lens also available for Models "U," "X" and "Y."

The Flashed Opal lens is a translucent diffusing glass flashed on both sides to eliminate glare and to provide diffused rather than direct light.

The Mello-Beam Diffuser is a patented composition which provides a result similar to that obtained from the Flashed-Opal lens, but at a comparatively lower cost. Mello-Beam Diffusers are used in connection with Clear Glass lenses in every instance.

The Daylight Lens, supplied for "U," "X" and "Y" Fostoria reflectors, filters light rays to simulate daylight effect. Another advantage is to reduce brightness of the light source.

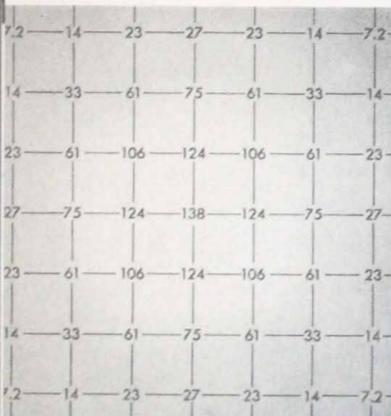
Standard and special reflector assemblies for Fostoria Flexible Arm Localites provide a range of light quantity, quality, and pattern unequaled on any similar line of localized lighting units on the market.

STANDARD REFLECTOR ASSEMBLIES

SPECIFICATIONS	Reflector Assembly No.	Type of Reflector	Overall Length	Maximum Lamp Size	For Use With Supporting Arms Listed Below
	B	Bell	9 $\frac{3}{4}$ "	60-watts	31-32-34-35-3166-3267-3670-3872
	C	Cone	10 $\frac{1}{6}$ "	60-watts	31-32-34-35-3166-3267-3670-3872
	D	Small Spot	4 $\frac{7}{8}$ "	Any "S" type, double contact bayonet candelabra base lamp	39-42-3971-3973
	H	Pear	10"	60-watt	31-32-34-35-3166-3267-3670-3971-3872-3973-42
	HS	Pear	10"	60-watt	39
	K	Pear	9 $\frac{1}{8}$ "	25-watt	31-32-34-35-3166-3267-3670-3872
	M	Cone	5 $\frac{7}{8}$ "	Double contact bayonet candelabra base type, not over 2 $\frac{3}{4}$ " long	39-3971-3973-42
	P	Parabola	12 $\frac{3}{8}$ "	100-watt	31-32-34-35-3166-3267-3670-3872
	U	Uni-focal	12 $\frac{1}{2}$ "	60-watt (75 on special order)	37-3368
	X	Uni-focal	12 $\frac{1}{2}$ "	60-watt (75 on special order)	31-32-34-35-69-3166-3267-3670-3872
	Y	Uni-focal	7 $\frac{1}{2}$ "	60-watt (75 on special order)	31-32-34-35-69-3166-3267-3670-3872



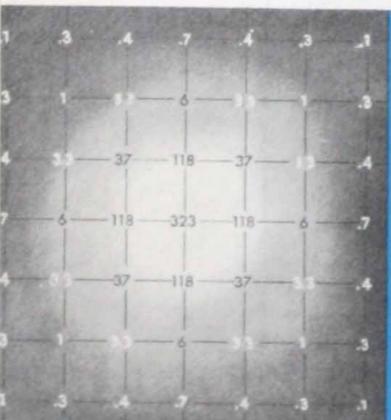
QUALITY AND QUANTITY OF LIGHT FOR EVERY LOCALIZED LIGHTING REQUIREMENT



Footcandles at intersections of 4" squares with 60-watt lamp 12" from rim of reflector to surface of light meter.



Footcandles at intersections of 4" squares with 60-watt lamp 12" from rim of reflector to surface of light meter.



Footcandles at intersections of 4" squares with 25-watt lamp 4" from rim of reflector to surface of light meter.



REFLECTOR TYPE: "B" (Bell).

SIZE: Overall length 9 $\frac{3}{4}$ ", maximum width 3 $\frac{5}{8}$ ".

LAMP ACCOMMODATION: One 60 Watt.

LIGHT PATTERN: Circular, 16" in diameter.

MAXIMUM INTENSITY: 138 foot-candles 12" from light meter to reflector rim.

FINISH: Outside wrinkle gray; inside DuLux white.

ACCESSORIES: Reflector guard, clear glass and flashed opal lenses and Mello-Beam Diffuser with clear glass lens.

REFLECTOR TYPE: "C" (Cone).

SIZE: Overall length 10", maximum width 6 $\frac{1}{2}$ ".

LAMP ACCOMMODATION: One 60 Watt.

LIGHT PATTERN: Circular, 20" in diameter.

MAXIMUM INTENSITY: 184 foot-candles 12" from light meter to reflector rim.

FINISH: Outside wrinkle gray; inside DuLux white.

ACCESSORIES: Clear glass and flashed opal lenses and Mello-Beam Diffuser with clear glass lens.

REFLECTOR TYPE: "M" (Miniature Cone).

SIZE: Overall length 5 $\frac{7}{8}$ ", maximum width 3 $\frac{1}{2}$ ".

LAMP ACCOMMODATION: Any double contact candelabra bayonet base lamp not over 2 $\frac{3}{4}$ " in length, except pre-focusing types. For either 110-115 volt or 6-8 volt current.

LIGHT PATTERN: Circular, 4" in diameter.

MAXIMUM INTENSITY: 323 foot-candles 4" from light meter to reflector rim.

FINISH: Outside smooth black; inside DuLux white.

ACCESSORIES: Clear glass and flashed opal lenses and Mello-Beam Diffuser with clear glass lens.

REFLECTOR TYPE: "D." (Small Spot)

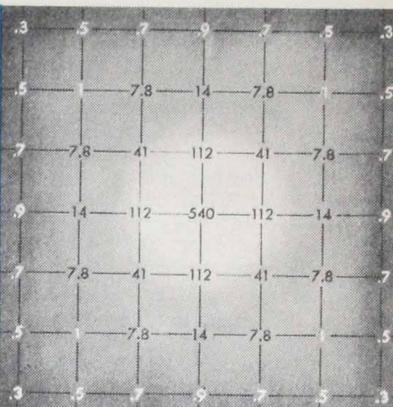
SIZE: Overall length $4\frac{1}{8}$ ", maximum width $2\frac{1}{2}$ ".

LAMP ACCOMMODATION: Any double contact candelabra bayonet base lamp not over $2\frac{3}{4}$ " long, except pre-focusing type. For 6-8 volt current.

LIGHT PATTERN: Circular, 4" in diameter.

MAXIMUM INTENSITY: 540 foot-candles 4" from light meter to reflector rim.

FINISH: Outside smooth black; inside special aluminum.



Footcandles at intersections of 4" squares with 15 candle-power 8-volt lamp 4" from rim of reflector to surface of light meter.

REFLECTOR TYPE: "H" (Pear).

SIZE: Overall length 10", maximum width $3\frac{1}{2}$ ".

LAMP ACCOMMODATION: One 60 Watt.

LIGHT PATTERN: Irregular, approximately 20" x 16".

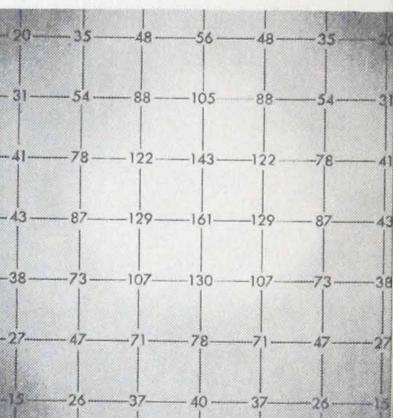
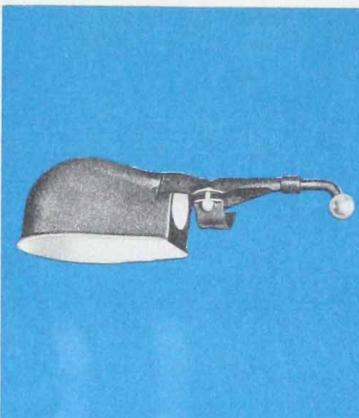
MAXIMUM INTENSITY: 161 foot-candles 12" from light meter to reflector rim.

FINISH: Outside wrinkle gray; inside DuLux white.

ACCESSORIES: Heat shield and reflector guard.

SPECIAL FEATURES: Light shield on socket end. Reflector may be rotated on ball stem 58° left or right.

Pear Type "HS"—Same as Type "H," but with $\frac{5}{8}$ " ball instead of $\frac{3}{4}$ ".



Footcandles at intersections of 4" squares with 60-watt lamp 12" from rim of reflector to surface of light meter.

REFLECTOR TYPE: "K" (Pear).

SIZE: Overall length $9\frac{1}{2}$ ", maximum width 3".

LAMP ACCOMMODATION: One 25 Watt.

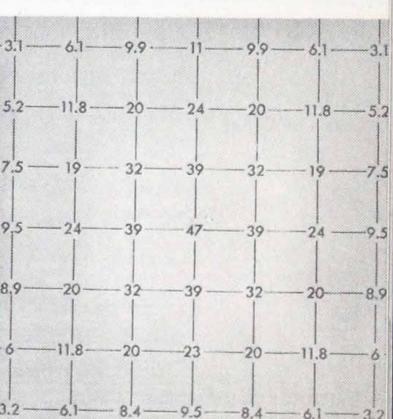
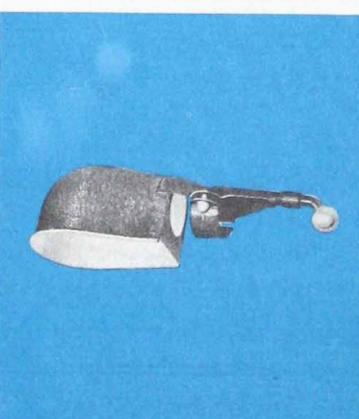
LIGHT PATTERN: Square, approximately 8".

MAXIMUM INTENSITY: 47 foot-candles 12" from light meter to reflector rim.

FINISH: Outside wrinkle gray; inside DuLux white.

ACCESSORIES: Heat shield.

SPECIAL FEATURES: Light shield on socket end. Reflector may be rotated on ball stem 58° left or right.



Footcandles at intersections of 4" squares with 25-watt lamp 12" from rim of reflector to surface of light meter.

REFLECTOR TYPE: "P" (Parabola).

SIZE: Overall length $12\frac{3}{8}$ ", maximum width $6\frac{1}{2}$ ".

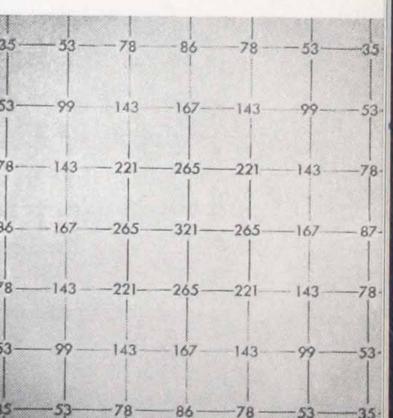
LAMP ACCOMMODATION: One 100 watt. Use socket extension for lamps 75 watts or less in size.

LIGHT PATTERN: Circular, 28" in diameter.

MAXIMUM INTENSITY: 321 foot-candles 12" from light meter to reflector rim.

FINISH: Outside wrinkle gray; inside DuLux white.

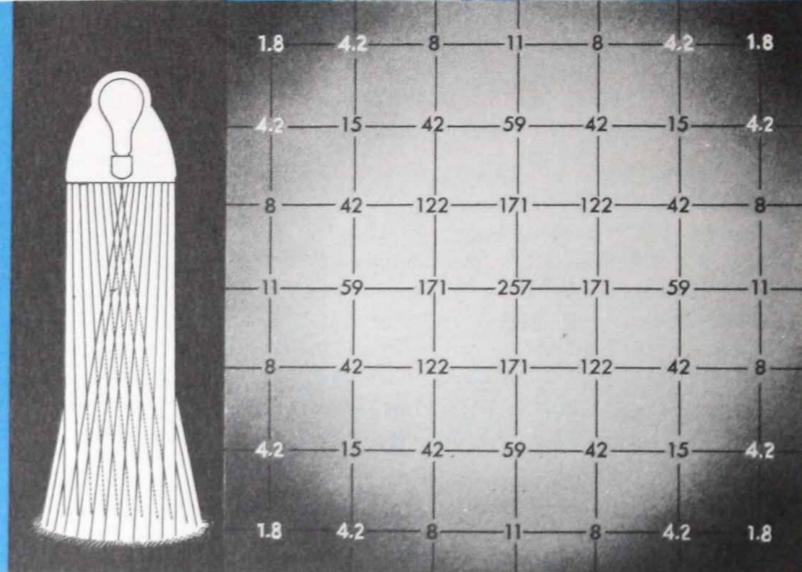
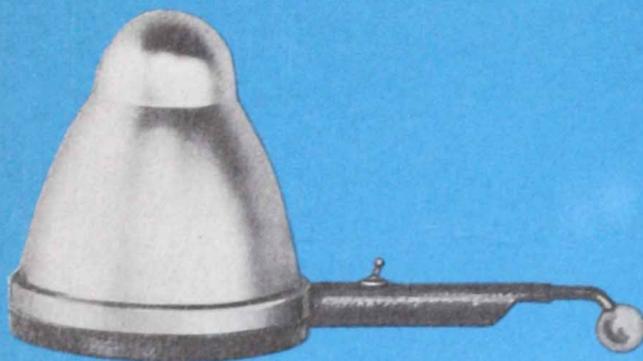
ACCESSORIES: Clear glass and flashed opal lenses and Mello-Beam Diffuser with clear glass lens.



Footcandles at intersections of 4" squares with 100-watt lamp 12" from rim of reflector to surface of light meter.

THE UNI-FOCAL REFLECTOR . . .

For Super-High Intensity
Illumination of Small Areas



Fostoria Uni-focal is the outstanding development in recent years in the small reflector field. No other small reflector approaches it in quality and quantity of illumination.

Material is spun Alzak Aluminum. Design provides for light rays being reflected into a converging beam, as illustrated, which brings the light to focus about 18 inches below the rim of the reflector.

The result is the ultimate in high intensity lighting. Illumination is uniform. Glare is reduced to a minimum by the effective shielding of the bright light source.

With Uni-focal the workman is enabled to see, without eye strain, every detail in the confined useful area illuminated.

Note chart above to discover high efficiency of the Uni-focal reflector. Readings taken at intersections of 4" squares 12" above surface of the light meter. 60-watt lamps at rated voltage.

TYPE "U"—Uses either 50 or 60-watt lamp, base down, and may be made to accommodate a 75-watt lamp on special order. Regular 25, 40 or 50-watt mill or rough service lamps may be used in this reflector in connection with a socket extension. Supplied with porcelain socket, toggle switch, clear glass lens. Daylight lens or Mello-Beam Diffuser available on special order. Furnished with wiring only. Ball for mounting is 1 inch in diameter. Reflector measures 6" across open end. Outside finish Alzak Aluminum only.

TYPE "X"—Same as Type "U," except ball for mounting measures $\frac{3}{4}$ inch in diameter.

TYPE "Y"—Same as Type "X", except is not equipped with reflector arm and switch.



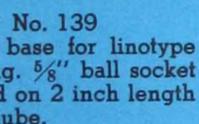
No. 101
 $\frac{3}{4}$ inch ball on hollow tube, set on 2 $\frac{1}{4}$ inch diameter cast base, height 2 $\frac{1}{2}$ inches.



No. 104
 One inch ball on hollow tube, set on 3 inch cast base, height 3 $\frac{1}{8}$ inches.



No. 109
 One $\frac{3}{4}$ inch ball socket on $\frac{1}{4}$ inch pipe threaded for attaching to outlet box cover. Height 2 $\frac{1}{2}$ ".



No. 139
 Special base for linotype mounting. $\frac{5}{8}$ " ball socket mounted on 2 inch length of $\frac{3}{8}$ " tube.



No. 114
 One inch ball on 2 inch solid stem mounted on 2-piece clamp for use on pipe, conduit, round bars, etc., of $\frac{3}{4}$ -inch to 1 $\frac{1}{4}$ inch outside diameter.



No. 115
 Same as No. 114 but with $\frac{3}{4}$ -inch ball.



No. 116
 One inch ball on 5 $\frac{3}{4}$ inch solid stem mounted on 2-piece clamp for use on pipe, conduit, round bars, etc., of $\frac{3}{4}$ inch to 1 $\frac{1}{4}$ inch outside diameter.



No. 102
 One inch ball on solid round rod and rectangular pressed steel base for machine mounting, height 1 $\frac{5}{8}$ inches.

No. 103
 $\frac{3}{4}$ inch ball on solid round rod and rectangular pressed steel base for machine mounting, height 1 $\frac{5}{8}$ ins.

No. 135
 $\frac{5}{8}$ inch ball on solid round rod and rectangular pressed steel base for machine mounting, height 2 inches.



No. 111
 One inch ball on hollow tube on 3-inch diameter cast base, height 11 $\frac{1}{2}$ inches.

No. 113
 Same as No. 111 but 16 $\frac{1}{4}$ inches high.

BASE ATTACHMENTS FOR FLEXIBLE ARM LINE

Just as a broad range of Supporting Arms and Reflectors is necessary to meet the multiplicity of localized lighting requirements, so is a wide variety of Base Attachments needed to insure quick and satisfactory installations.

Here and on the following pages—twelve and thirteen—are illustrated or described many such attachments proven in service to take care of most common installations, permanent or portable.

In general, these Base Attachments may be applied directly to the various models of Supporting Arms, while several attach directly to the Reflector Assembly. See specification tables on pages six and thirteen.



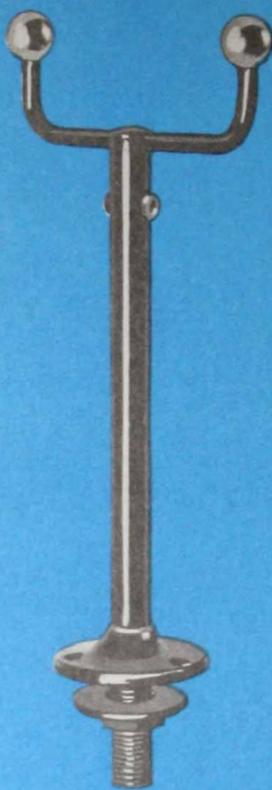
No. 105
1 inch ball on $\frac{1}{4}$ inch pipe
threaded on one end to
fit $\frac{1}{2}$ " D hole in outlet box,
height $3\frac{1}{4}$ ".



No. 106
One inch ball on solid
round rod and rectangular
pressed steel base for ma-
chine mounting, height
 $5\frac{3}{4}$ inches.



No. 110
Base clamp for use with
bases 102, 103, 106, 112
and 135 in mounting units
on tables and benches.
Always sold separately.



No. 140
12 $\frac{3}{8}$ " length of $\frac{1}{2}$ " con-
duit with No. 104 base
plate brazed to conduit
 $2\frac{1}{2}$ " from lower end. Up-
per end has $\frac{3}{8}$ " solid rod
curved to U-shape with
one inch balls soldered to
ends. Lower end of con-
duit threaded.



No. 142
Cast iron base 12" high
fitted with one inch ball.
Mounting holes $2\frac{3}{4}$ " x
 $1\frac{1}{2}$ " c to c. Equipped with
toggle switch in base.

No. 143
Same as No. 142 but with-
out toggle switch.



No. 145
Cast iron base 12" high,
fitted with one inch ball
and socket joint assembly.

No. 144
Same as No. 145 but has
built-in toggle switch in
base.



No. 146
Stud assembly for certain
Singer sewing machines.
One inch ball and socket
joint soldered to special
stud. Stud has $\frac{1}{8}$ -24 thread,
center nut $\frac{1}{8}$ x $\frac{1}{16}$ inch.

No. 147
Stud assembly for certain
Wheeler sewing machines.
One inch ball and socket
joint soldered to special
stud. Stud has $\frac{1}{8}$ -24 thread,
center nut $\frac{1}{8}$ x $\frac{1}{16}$ inch.

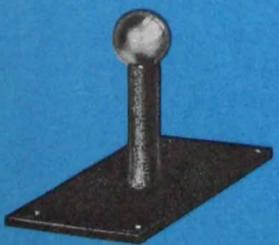
No. 148
Stud assembly for certain
Willcox & Gibbs sewing
machines. One inch ball
and socket joint soldered
to special stud. Stud has
No. 14-32 thread, center
nut $\frac{1}{8}$ x $\frac{1}{16}$ inch.

No. 149
Stud assembly for certain
Union Special sewing ma-
chines. One inch ball and
socket joint soldered to
special stud. Stud has $\frac{1}{8}$ -
24 thread, center nut $\frac{1}{8}$ x
 $1\frac{1}{8}$ inch.



No. 123
Cast floor base with $\frac{3}{4}$ inch pipe upright 70 inches high — no casters.

No. 124
Same as No. 123 but with casters — 73 inches high.



No. 130
1" ball on $\frac{1}{2}$ " solid round rod on rectangular 2" by 4" plate, height $1\frac{3}{4}$ ".



No. 126
Cast floor base adjustable to eight heights — with casters — minimum height 60 inches, maximum height 102 inches.

No. 125
Same as No. 126 but without casters.

No. 132
Same as No. 126 but with 1 inch ball on top of rod for attaching any arm with one inch ball sockets.



No. 112
 $\frac{3}{4}$ inch ball socket on $\frac{1}{2}$ inch tube on rectangular pressed steel base, height $2\frac{5}{8}$ ".

SPECIFICATIONS STANDARD LOCALITE BASES

Base Number	For Use With Supporting Arms Listed Below
101	31, 3166
102	32, 34, 37, 3267, 3368, 3476, 3670, 3872
103	31, 3166
104	32, 34, 37, 3267, 3368, 3476, 3670, 3872
105	32, 34, 37, 3267, 3368, 3476, 3670, 3872
106	32, 34, 37, 3267, 3368, 3476, 3670, 3872
109	69 Arm (and B-C-H-K-P-X-Y Reflector Assemblies).
110	Used on bases 102, 103, 106, 112, 135 only.
111	32, 34, 37, 3267, 3368, 3476, 3670, 3872
112	69 Arm (and B-C-H-K-P-X-Y Reflector Assemblies).
113	32, 34, 37, 3267, 3368, 3476, 3670, 3872
114	32, 34, 37, 3267, 3368, 3476, 3670, 3872
115	31, 3166
116	32, 34, 37, 3267, 3368, 3476, 3670, 3872
123	All Supporting Arms equipped with Nos.
124	114, 115, 116 Clamp Bases.
125	
126	
130	32, 34, 37, 3267, 3368, 3476, 3670, 3872
132	32, 34, 37, 3267, 3368, 3476, 3670, 3872
135	39, 42
139	Used on HS-M-D Reflector Assemblies only.
140	32, 34, 37, 3267, 3368, 3476, 3670, 3872
142	32, 34, 3267, 3476, 3670, 3872
143	32, 34, 37, 3267, 3368, 3476, 3670, 3872
144	35, 3971, 3973
145	35, 3971, 3973
146	35, 3971, 3973
147	35, 3971, 3973
148	35, 3971, 3973
149	35, 3971, 3973

FOSTORIA FLEXIBLE LOCALITE COMPLETE UNITS

As a general rule, a complete Flexible Arm Localite is a combination of reflector assembly, supporting arm, base attachment, and cord set, which includes socket, cord and plug. Where the switch is not included in the socket it is provided elsewhere in the unit. Each unit is individually packed.

As outlined previously, standard cord set includes Neoprene socket with Fostoria Socket Seal feature, PO Neoprene wiring, and Spring Clip rubber plug—except as otherwise specified in current price list.

Optional wiring is standard 250 watt 250 volt metal socket equipped with Fostoria Socket Seal, Underwriters' approved POSJ-BOA-64 cloth covered rubber cord treated with ten coats of lacquer, and Spring Clip rubber plug. Metal socket has a small "shoulder" extending from the shell of the socket which prevents shorts in the key through wear where key enters the reflector arm.

Also optional is any combination of the above described parts.

Except in certain instances, the outside finish on Fostoria Flexible Arm Localites is wrinkled baked enamel, because this type of finish eliminates reflected glare. Only on the smaller units is smooth finish standard. Wrinkled enamel finish, when baked at high temperatures, withstands the deteriorating effects of oil, grease, acid fumes, vapor, etc., and thus maintains its original attractive appearance substantially longer than ordinary finishes.

Each part is first treated with a rust-proofing material before enamel is applied.

The inside of Fostoria Localite Reflectors, except the Uni-Focal which is Alzak Aluminum, is finished with a selected Du Pont DULUX enamel which gives maximum reflection and does not discolor with heat or age. The resulting hard, porcelain-like surface is easy to keep clean.

INSTRUCTIONS FOR ORDERING . . .

Supporting Arms, Reflector Assemblies, and Base Attachments carry individual stock numbers. Combinations of these numbers provide stock numbers for complete Flexible Arm units. For example — Complete unit No. 3267-H-102 is a combination of No. 3267 supporting arm, No. H reflector assembly, and No. 102 base attachment.

In case a Type "C" reflector is desired instead of Type "H" the stock number will read No. 3267-C-102. And, if a base attachment other than No. 102 is wanted, the desired number should be substituted for No. 102, as specified on page 6.

Whenever a lens is desired, the lens specifications should be added to the lamp part number.

The preceding specification tables, on pages six, seven and thirteen, show which reflector assemblies fit what supporting arms, and vice versa. They show which supporting arms fit what base attachments, and vice versa. And on the opposite page is a table showing listings of all the possible combinations. Current price list shows quotations on all complete units.

Combinations not provided for in specification tables may be obtained on special order. Prices on request.

SPECIFICATIONS

SINGLE ARM COMPLETE UNITS

Stock Number	Overall Length	Arm No.	Reflector Number	Base No.	Type Finish*	Alternate Reflectors	Alternate Bases
H-112	13"	None	H	112	W. Gray	B-C-K-P-X-Y	109
HS-139	12 $\frac{7}{8}$ "	None	HS	139	W. Gray	None	None
31-K-103	17 $\frac{3}{4}$ "	31	K	103	W. Gray	B-C-H-P-X-Y	101-115
32-H-102	22 $\frac{1}{2}$ "	32	H	102	W. Gray	B-C-K-P-X-Y	104-105-106-111-113-114 116-130-132-140-142-143
34-B-111	35 $\frac{1}{4}$ "	34	B	111	W. Gray	C-H-K-P-X-Y	102-104-105-106-113-114 116-130-132-140-142-143
35-Y-144	36 $\frac{1}{2}$ "	35	Y	144	W. Gray	B-C-H-K-P	145-146-147-148-149
35-B-145	38 $\frac{3}{4}$ "	35	B	145	W. Gray	C-H-K-P-X	144-146-147-148-149
37-U-102	30 $\frac{1}{2}$ "	37	U	102	W. Gray	None	104-105-106-111-113-114 116-130-132-140-143
42-M-135	13 $\frac{1}{4}$ "	42	M	135	S. Black	D-HS	None
69-X-109	25 $\frac{1}{8}$ "	69	X	109	W. Gray	Y	112

*"W" indicates Wrinkled Finish—"S" indicates Smooth Finish
Each model is provided with sufficient cord to give approximately 36" extension beyond base of unit.

SPECIFICATIONS

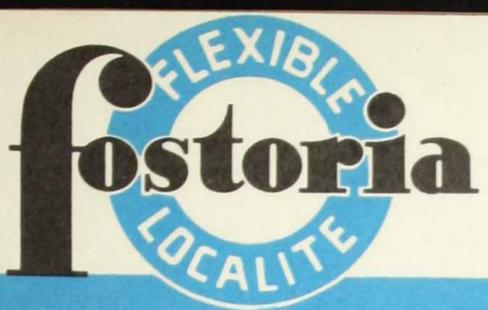
DOUBLE ARM COMPLETE UNITS

Stock Number	Overall Length	Arm No.	Reflector Number	Base No.	Type Finish*	Alternate Reflectors	Alternate Bases
3166-K-101	25 $\frac{1}{4}$ "	3166	K	101	W. Gray	B-C-H-P-X-Y	103-115
3267-H-102	31 $\frac{7}{8}$ "	3267	H	102	W. Gray	B-C-K-P-X-Y	104-105-106-111-113-114 116-130-132-140-142-143
3368-U-102	38 $\frac{1}{2}$ "	3368	U	102	W. Gray	None	104-105-106-111-113-114 116-130-132-140-142-143
3670-H-102	42 $\frac{1}{4}$ "	3670	H	102	W. Gray	B-C-K-P-X-Y	104-105-106-111-113-114 116-130-132-140-142-143
3872-H-102	48 $\frac{3}{4}$ "	3872	H	102	W. Gray	B-C-K-P-X-Y	104-105-106-111-113-114 116-130-132-140-142-143
3971-M-146	26 $\frac{1}{2}$ "	3971	M	146	S. Black	D-HS	145-147-148-149
3973-M-145	33 $\frac{3}{4}$ "	3973	M	145	S. Black	D-HS	146-147-148-149
3476-CL-130	42 $\frac{3}{4}$ "	3476	CL	130	W. Black	B-H-K-P-X-Y	102-104-105-106-111-114 116-130-132-140-142-143

*"W" indicates Wrinkled Finish—"S" indicates Smooth Finish
Each model is provided with sufficient cord to give approximately 36" extension beyond base of unit.

TYPICAL SINGLE ARM UNITS

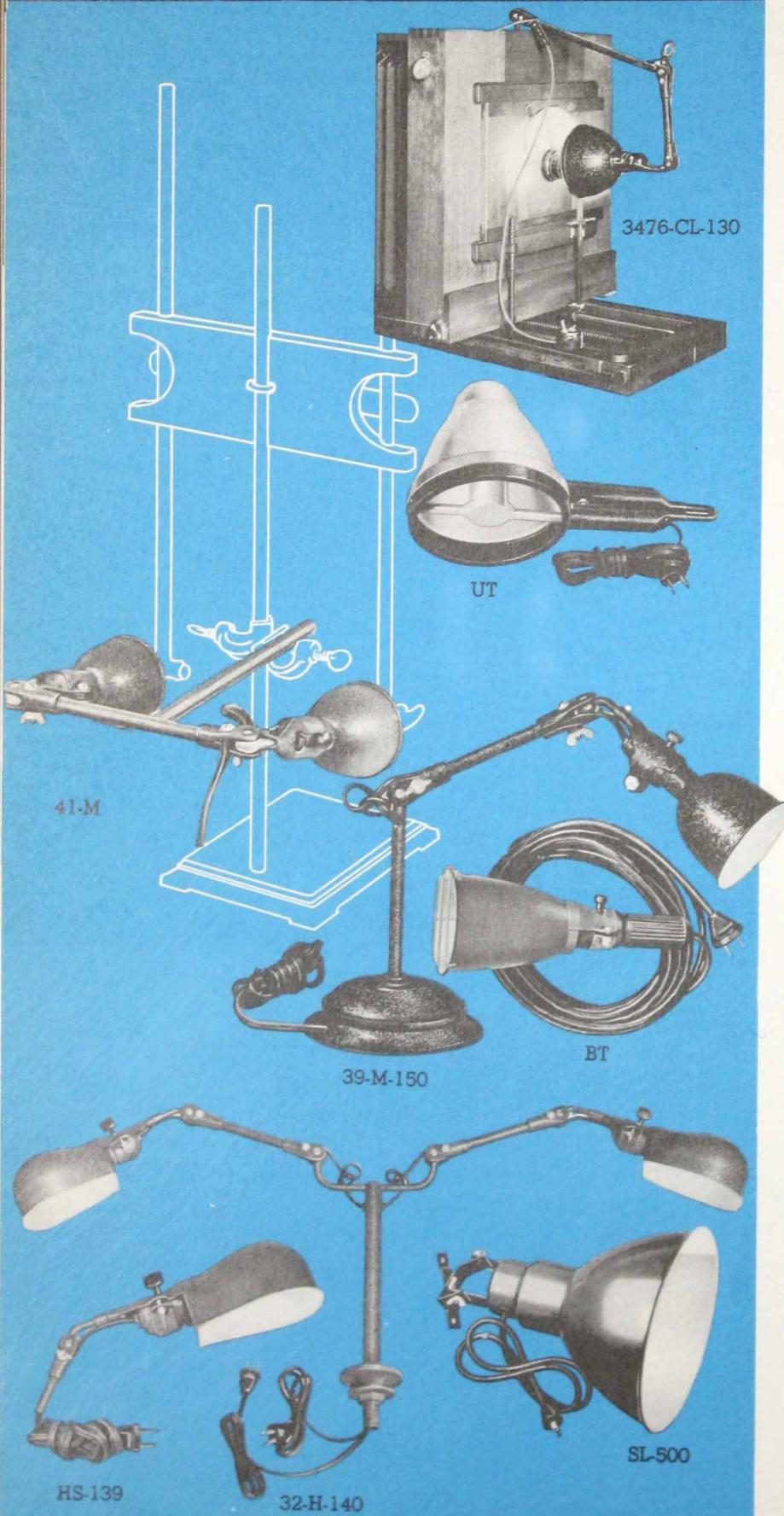




TYPICAL DOUBLE ARM UNITS



SPECIAL LOCALITE COMPLETE UNITS



CAMERA FLASHING LAMP — This new unit provides a positive means to insure completely uniform flashing results. High intensity, diffused light is focused toward the camera lens from an identical position for every flashing job. Eliminates guess-work, saves time and current, avoids costly make-overs. Double arm, 3-joint support with type "C" reflector with diffusing glass lens. Overall 31", lower arm 17", upper arm, 14". Wired with 8' cord and special switch box with ball bat switch for instant speed and toggle switch for longer exposure, and No. 1 photo flood lamp. Provision is made for addition of automatic timer if desired. Finish, wrinkle black baked enamel.

UT—HAND INSPECTION LAMP — 12½" overall length. Equipped with type "U" reflector, trigger switch and 8 ft. POSI-BOA-64 cord. Hand grip pressure lights lamp. Release of pressure automatically switches off light. Uses 60-watt lamp. Available for 75-watt on special order. Wrinkle gray finish arm, Alzak reflector.

BT-HAND SHOP LAMP — 10½" overall length. Equipped with type "B" reflector and guard, special combination rubber socket and rubber grip handle, and 25 ft. S. J. cord. Wrinkle gray finish. Uses 60-watt lamp.

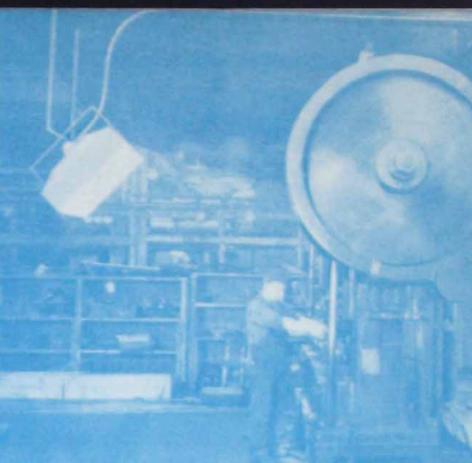
41-M BURETTE LAMP — For laboratory use. Supporting arm No. 41 fitted with 2 type "M" reflectors including 2 bayonet type double contact candelabra 25-watt lamps. Overall size 7¼" x 8". Wired complete, including two lamps. Wrinkle black finish. 6 ft. of cord.

HS-139 LINOTYPE MACHINE LAMP — Overall length 12½ inches. Uses HS type reflector and special base which fits into small hole beside linotype keyboard. Accommodates up to 60-watt lamp. Outside finish, wrinkle gray.

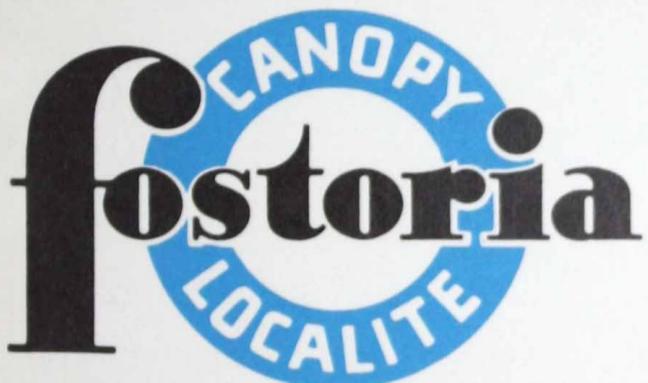
MODEL 32-H-140 — A single base, double reflector unit for use on tables or benches requiring illumination on both sides. Uses two "H" reflectors, 2 arms each 7" long, and special base 14" overall and 6" between balls. Wrinkle gray finish. May also be used with various other arms and reflectors.

MODEL SL-500 — An adjustable spotlight providing convenient and effective lighting for such objects as work benches, machines, night construction work, flower beds, Christmas trees, gardens, show windows, sign boards, show rooms, etc. Uses one 300- or 500-watt lamp. Bracket is cast aluminum and permits adjustment to any angle. May be attached to pipe or bar 1" to 3" in diameter, or to crossarms, posts or buildings. Reflector measures 16" in diameter and complete unit is 15½" long. Pig-tail connection furnished — no attachment plug. Outside finish, green — inside, white.

MODEL 39-M-150 — Extremely flexible unit for laboratory and instrument illumination. Two ball and socket joints permit easy adjustment to light work under a variety of conditions. Weighted spun steel base 5" in diameter with 5¼" upright. Arm is 5½" long, overall length of complete unit 18". Uses bayonet type double contact candelabra base lamp; furnished wired with socket, cord, plug and lamp.



GLARELESS SHADOWLESS LIGHT FOR CRITICAL SEEING TASKS ..



THE FOSTORIA CANOPY LOCALITE

To meet the need for localized lighting over relatively large working surfaces, Fostoria recommends the large-area low-brightness Fostoria Canopy Localite.

Like the Flexible Arm Localite, the Fostoria Canopy is engineered to the seeing task — and provides indirect, glareless, shadowless, evenly distributed illumination for these tasks efficiently and economically.

As in the case of the Flexible Arm unit, the Fostoria Canopy is designed to supplement the general illumination system, bringing the required quantity and quality of light directly on the job the worker is performing.

To see the Fostoria Canopy Localite in operation is to know that here is a definite step forward in lighting design and utility. Canopy lighting does what large light sources have never accomplished economically. It provides workers, at small cost, the kind and volume of diffused illumination required to see clearly and without effort everything in the working area.

Canopy lighting makes good workers better workers — increasing output and improving the quality of production — because with this highly efficient lighting, workers move with sureness, precision and in safety.

Fostoria Canopy Localites are available in two designs, each of which are produced in several different models.

Type "Z" Canopy employs a trough for shielding the light source, and is made in three sizes — Model "ZA" being adapted for overhead mounting, and for attachment to trolley track, portable floor stand, flexible arm for bench applications, and as a portable desk and table unit. Models "ZB" and "ZC," described herewith but not illustrated, are for overhead mounting only. Specifications on pages 20 and 21.

Type "W" Canopy uses either silvered bowl lamps or clear lamps with aluminum lamp cups to accomplish an indirect quality of lighting, and is made in five sizes. Specifications on pages 22 and 23.

No matter what the requirements are in connection with large-area low-brightness units of this character, it is possible to meet them with the Fostoria Canopy line.



MODEL 74-ZA-128
PORTABLE FLOOR MODEL



MODEL ZA-138
FOR TROLLEY TRACK INSTALLATION



MODEL ZA
FOR OVERHEAD INSTALLATION



MODEL 74-ZA-122
TABLE CLAMP MODEL

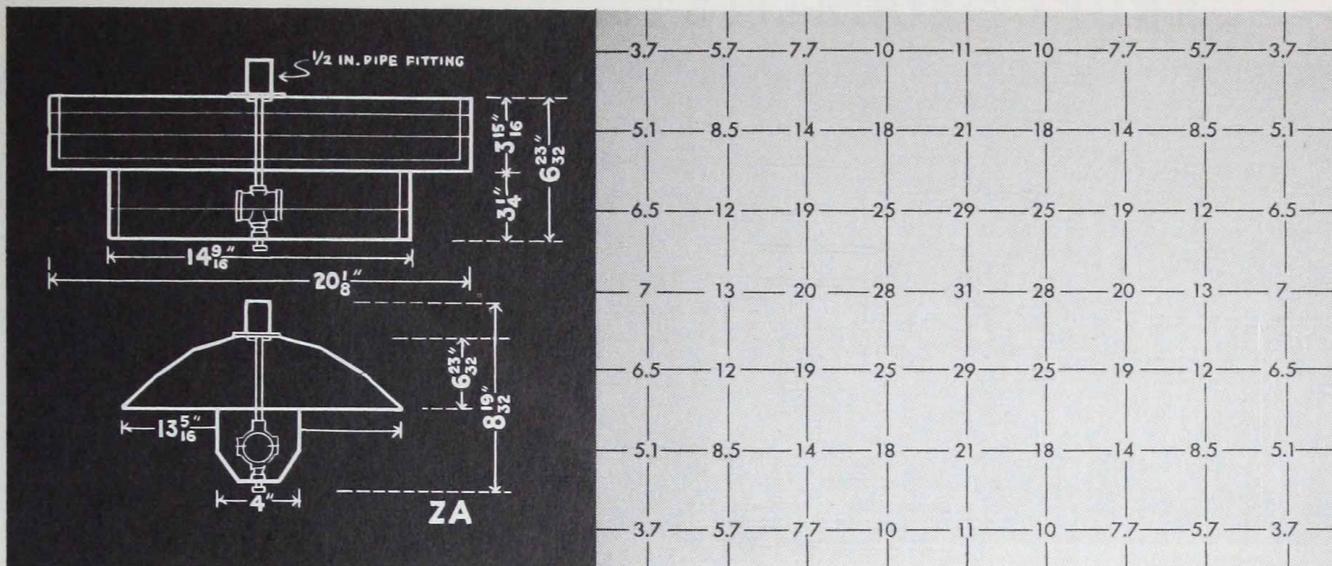


MODEL ZAT
PORTABLE TABLE MODEL



EFFICIENCY CHART

Foot candles at intersection of 8" squares with two 75-watt inside frosted lamps. 24" from rim of reflector to surface of light meter.



THE "Z" TYPE CANOPY LOCALITE

TYPE "ZA"—Measures 20x13 $\frac{5}{16}$ x8 $\frac{5}{8}$ inches. Rectangular light pattern approximately 24" x 40". Will accommodate up to two 100-watt lamps, although 75-watt size is adequate for most work. Wired complete with 22" of cord, plaskon socket and turn-button switch. Outside finish wrinkle black enamel. Special diffusing finish inside. 10 ft. of cord in Models 74-ZA-121 and 74-ZA-122, and 22 $\frac{1}{2}$ ft. in Model 74-ZA-128.

TYPE "ZAT"—"ZA" Canopy mounted on 1 $\frac{1}{8}$ " tube in cast base 9" in diameter. 20 $\frac{5}{8}$ " high and 17" from working surface to lower edge of Canopy. Base protected with heavy felt. Wired with 8 ft. cord, plug and toggle switch in base. Outside finish wrinkle black or bronze.

TYPE "ZB"—Similar in design to "ZA" but measures 40 x 24 $\frac{1}{2}$ x 13 inches. Accommodates four 100-watt lamps. Wired with sockets and one foot cord extension for conduit connection. Outside finish wrinkle gray.

TYPE "ZC"—Same as "ZB" but measures 60x40 x 18 $\frac{1}{2}$ ", and accommodates four 150-watt lamps.

ATTACHMENTS FOR TYPE "ZA" CANOPIES

NUMBER 74 ARM—Curved $\frac{3}{8}$ " pipe, 29" vertical and 19" horizontal. For use with Nos. 121, 122 and 128 bases only.

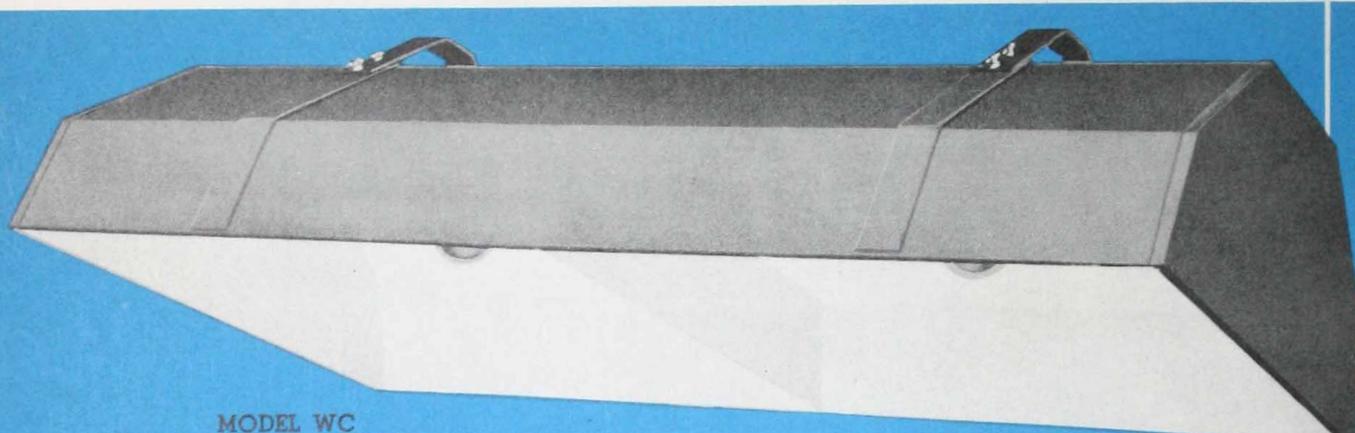
NUMBER 121 BASE—Cast base 3" diameter threaded for $\frac{3}{8}$ " pipe. For use with No. 74 arm only.

NUMBER 122 BASE CLAMP used in conjunction with No. 74 arm for clamping to table or bench.

NUMBER 128—Cast floor base with $\frac{3}{4}$ " pipe, 49" high; for use on No. 74 arm only.

NUMBER 138—For trolley-track attachment. 12 inch length of $\frac{1}{2}$ " conduit to one end of which is attached a "U" shaped bracket fitting into the trolley. Does not include trolley or track.

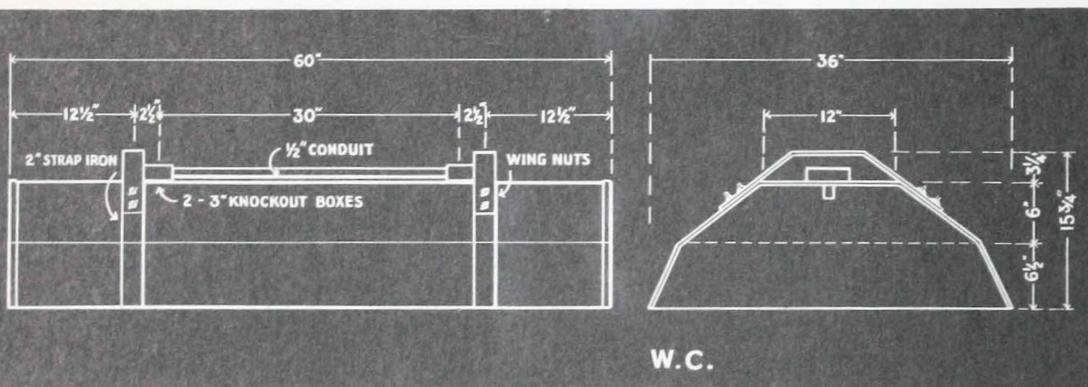
THE "W" TYPE CANOPY LOCALITE



MODEL WC
5 FT. MINIMUM LENGTH

ALZAK LAMP CUPS

Alzak Aluminum cups in 150-300 and 500 watt sizes. Fit clear lamps in any "W" Canopy.



Developed by Fostoria with the cooperation of several of the industry's outstanding illumination engineers, Type "W" Canopy has long since proved its efficiency and value as a fool-proof localized lighting unit. It was the first of its kind on the market and possesses an enviable record in a variety of installations such as cloth and leather cutting rooms, typesetting and engraving operations, drafting departments, bright metal parts inspection lines, metal scribing, and many others.

TYPE "WC"—Length 60", width 36", depth of Canopy, 12 1/2". Uses two 150-watt or 200-watt clear lamps with Alzak lamp cups or silver bowl lamps spaced 2 1/2 ft. apart. Six-inch baffle plate between lamps to reduce brightness. Unit furnished completely wired

14.5	19	24	28.5	32.5	35	36	35	37.5	24	19
17.5	23.5	30	37	42	45	46	45	42	30	23.5
20.5	27.5	35	44	52	59	60	59	52	44	35
22	30	40	53	62	67	69	67	62	53	40
24	32	42	56	65	70	71	70	65	56	42
22	30	40	53	62	67	69	67	62	53	40
20.5	27.5	35	44	52	59	60	59	52	44	35
17.5	23.5	30	37	42	45	46	45	42	37	23.5
14.5	19	24	28.5	32.5	35	36	35	37.5	24	19

EFFICIENCY CHART

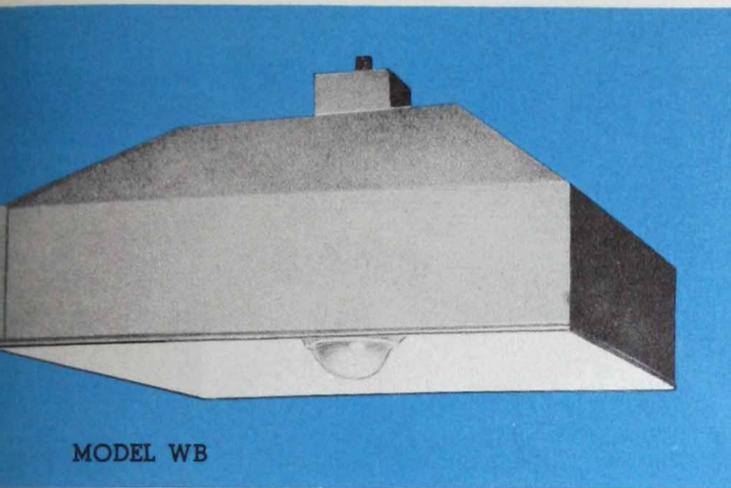
Readings at intersections of 8" squares, 42" below Canopy edge, using two 200-watt silver bowl lamps at rated voltage.

with medium base porcelain sockets, outlet boxes, 1/2" conduit, and mounting straps. Outside finish, wrinkle gray, inside special diffusing finish. Wiring may be suspended from ceiling prior to installation of the Canopy itself. Provision is made for installation of diffusing glass if desired.

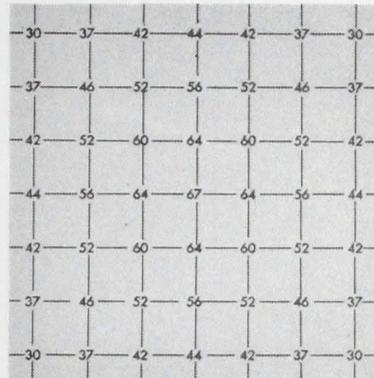
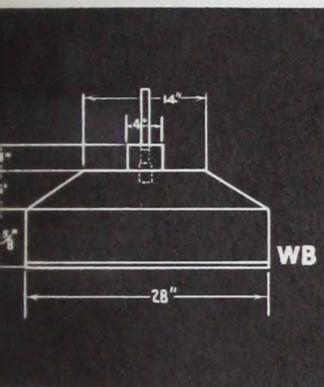
TYPE "WD"—Length 90", width 36", depth of Canopy, 12 1/2", and accommodates 3 lamps. Otherwise the same as Model "WC."

TYPE "WE"—Length 120", width 36", depth of Canopy, 12 1/2", and accommodates 4 lamps. Otherwise the same as Model "WC."

For longer installations use any combination of the above units.



MODEL WB

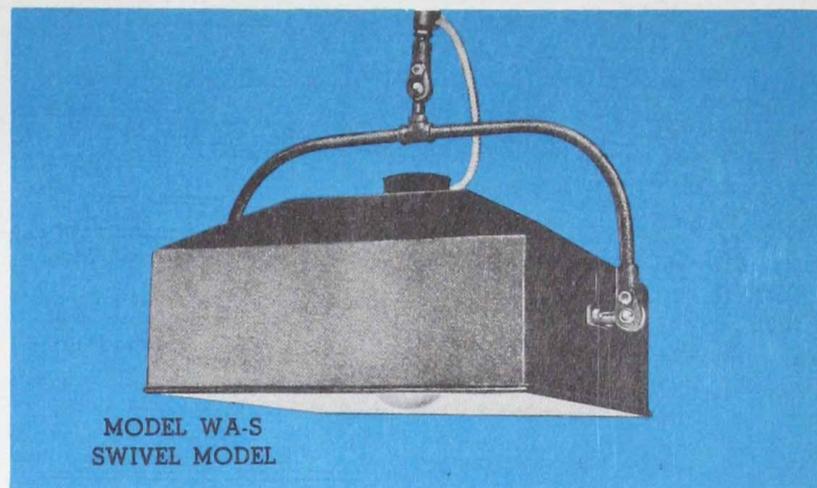


EFFICIENCY CHART

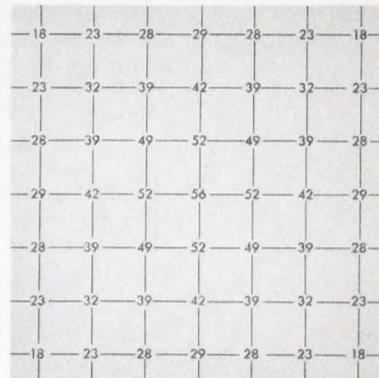
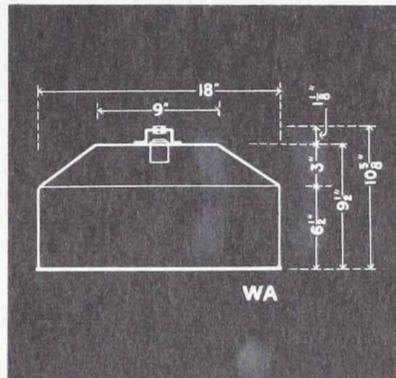
Readings at intersections of 8" squares,
42" below Canopy edge, with 300-watt
silver bowl lamp at rated voltage.

TYPE "WB"—Measures 28" x 28" x 14 $\frac{5}{8}$ " and accommodates either one 300 or one 500-watt silver bowl lamp or clear lamp with Alzak cup. Furnished with Mogul base socket and 6" of free No. 14 wire. Equipped with threaded $\frac{1}{2}$ " pipe for attaching to overhead support. Illustrated above.

TYPE "WB-S"—Not illustrated. Similar to "WB" but is suspended in a yoke to permit free swiveling for directional lighting. Furnished with Mogul base socket, yoke, swivel joint and outlet box. Unit is complete and wired ready for installation to $\frac{1}{2}$ " conduit. Socket extension should be employed for best results when 500 watt lamp is used.



MODEL WA-S
SWIVEL MODEL



EFFICIENCY CHART

Readings at intersections of 8" squares,
36" below Canopy edge, using 200-watt
silver bowl lamp at rated voltage.

TYPE "WA"—Measures 18" x 18" x 13 $\frac{13}{16}$ " and accommodates either one 150-watt or one 200-watt silver bowl lamp or clear lamp with Alzak cup. Furnished with socket and two lock nuts for attaching Canopy to the supporting pipe. Not illustrated.

TYPE "WA-S"—Similar to "WA" but suspended in a yoke to permit free swiveling for directional lighting. Furnished with Mogul base socket, yoke, swivel joint and outlet box. Unit is complete and wired ready for installation to $\frac{1}{2}$ " conduit. Illustrated above.

SPECIAL LOCALITE SEWING MACHINE UNITS

Because of the vibration present in most power sewing machine operations illumination engineers try to install lighting units separate and apart from machines and tables.

Where this is impractical, the next best recommendation is attachment of lighting units to the bench or table. The last suggestion is application to the head of the machine.

Whatever the requirement, it is met quickly by one of several Fostoria Localites, some of which are designed especially for sewing machine work. Those most commonly used are illustrated here. Fostoria construction provides for necessary flexibility and for adequate rigidity to reduce vibration to a minimum.

The type of work involved generally determines the type of reflector to be used. For work needing extremely high intensities at the needlepoint, the "D" reflector gives 540 footcandles on 8-volt current with 15 c. p. lamp. Especially for 6-8 volt current with a transformer.

Where less intensity is needed over a small area, the "M" type reflector gives about 325 foot candles at needlepoint with 25-watt double contact candelabra bayonet base lamp. Uses any such lamp not over 2 $\frac{3}{4}$ " overall, except the pre-focusing types.

For high intensity over a larger area, say a circle 16" in diameter, the "B" reflector works best. Uses up to a 60-watt lamp, and may be made special for 25-watts. Maximum intensity with 60-watt lamp is about 135 footcandles.

The "H" reflector permits illumination over an irregular pattern approximately 20" x 16". Maximum intensity in center of pattern about 160 footcandles.

Model "K" reflector creates a square light pattern of relatively low intensity, about 47 footcandles at center of 8" square. Accommodates up to a 25-watt lamp.

See pages 8 and 9 for efficiency chart for each reflector.

Model 3971-M-146—May be used either with 110-115 volt current or 6-8 volt power with a transformer. See page 15 for alternative reflectors and bases.

Model 32-H-140—For lighting both sides of a narrow table. See page 18 for detailed description.

Model 34-B-111—See page 15 for alternative reflectors and bases.

Model 35-B-145—See page 15 for alternative reflectors and bases.

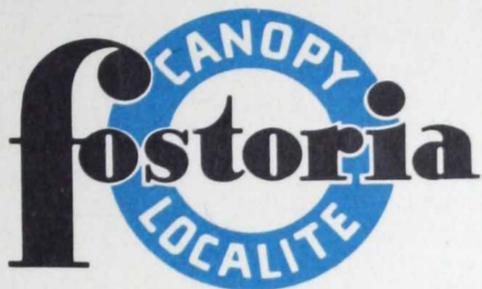
Model 35-K-145—Similar to the above model, but employing the Model "K" reflector.

Model 3973-D-145—Recommended for use with 6-8 volt current with transformer. See page 15 for alternative reflectors and bases.

Model 3973-M-145—Similar to the above, but does not have the high light intensity of the "D" reflector.

Model 42-M-135—See page 15 for alternative reflectors.





SPECIALIZED ENGINEERED UNITS FOR EVERY INDUSTRIAL NEED

Distributors Throughout the World

Fostoria Localites are distributed exclusively through selected wholesalers, so established in principal cities as to make service immediately available to all. Direct factory representatives are located as follows:

FRITZ UHLENHAUT

6 Ashmont Road
WABAN, MASS.

W. S. ROSS

71 Murray Street
NEW YORK CITY

J. H. RICHARDS

6906 N. 20th Street
PHILADELPHIA, PA.

CARL W. SHARP

1209 Westlake Ave.
LAKEWOOD, OHIO

R. F. CRAIG

Howard Court
RICHMOND, INDIANA

R. N. GREEN

763 South Street
ELGIN, ILLINOIS

W.E. McDONOUGH

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